What is claimed is:

1. A semiconductor device comprising:

a semiconductor base;

a first insulation film which is provided on said semiconductor base and is made of a silicon material;

a second insulation film which is provided on said first insulation film, is made of an organic material, and is thicker than said first insulation film;

a third insulation film which is provided on said second insulation film, is made of a silicon material, and is thinner than said second insulation film; and

a wiring layer which is provided on said third insulation film, wherein a current flows between said wiring layer and an external terminal.

2. The semiconductor device according to claim 2, further comprising

a fourth insulation film which is provided between said third insulation film and said wiring layer so as to cover an entire surface of said third insulation film, and is made of an organic material.

3. The semiconductor device according to claim 2, further comprising

a fifth insulation film which is provided between said fourth insulation film and said wiring layer and is made of a silicon material.

4. The semiconductor device according to claim 3,

wherein said fifth insulation film has a top view shape same as that of said wiring layer.

5. The semiconductor device according to claim 2,

wherein said fourth insulation film is made of polybenzoxazole resin.

6. The semiconductor device according to claim 1,

wherein said wiring layer is made of metal.

7. The semiconductor device according to claim 6,

wherein said wiring layer constitutes a metal pad which is connected to said external

terminal, and/or a metal wire through which the current flows via said metal pad.

8. A manufacturing method of a semiconductor device comprising:

a step of forming a first insulation film made of a silicon material on a semiconductor base;

a step of forming a second insulation film made of an organic material and thicker than said first insulation film on said first insulation film;

a step of forming a third insulation film made of a silicon material and thinner than said second insulation film on said second insulation film; and

a step of forming a wiring layer on said third insulation film, wherein a current flows between said wiring layer and an external terminal.

9. The manufacturing method of a semiconductor device according to claim 8, further comprising

a step of forming a fourth insulation film made of an organic material and thinner than said third insulation film between said third insulation film and said wiring layer so as to cover an entire surface of said third insulation film.

10. The manufacturing method of a semiconductor device according to claim 9, wherein said step of forming said wiring layer includes:

a step of forming a seed layer serving as a seed for growing a metal layer by a plating process, on said fourth insulation film;

a step of forming a resist film on areas of said seed layer on which said wiring layer is not to be formed;

a step of growing said metal layer by a plating process on areas of said seed layer that are not covered with said resist film; and

a step of removing said resist film, and said seed layer beneath said resist film by etching.

11. The manufacturing method of a semiconductor device according to claim 10, further comprising

a step of forming a fifth insulation film made of a silicon material between said fourth insulation film and said wiring layer.

12. The manufacturing method of a semiconductor device according to claim 9, wherein said step of forming said fourth insulation film includes a step of making said fourth insulation film of polybenzoxazole resin.

13. The manufacturing method of a semiconductor device according to claim 8, wherein said wiring layer constitutes a metal pad which is connected to said external terminal, and/or a metal wire through which the current flows via said metal pad.

14. A semiconductor device comprising:

a semiconductor base;

a first insulation film which is provided on said semiconductor base;

a second insulation film which is provided on said first insulation film and is thicker than said first insulation film;

a third insulation film which is provided on said second insulation film and is made of a material having a moisture resistance property; and

a wiring layer which is provided on said third insulation film, wherein a current flows between said wiring layer and an external terminal.

15. The semiconductor device according to claim 14, further comprising

a fourth insulation film which is provided between said third insulation film and said wiring layer so as to cover an entire surface of said third insulation film in order to prevent said third insulation film from being damaged.

16. The semiconductor device according to claim 15, further comprising

a fifth insulation film which is provided between said fourth insulation film and said wiring layer to function as an adhesive layer for preventing separation of said wiring layer.

17. The semiconductor device according to claim 16,

wherein said fifth insulation film has a top view shape same as that of said wiring

layer.

18. The semiconductor device according to claim 15,

wherein said fourth insulation film functions as an adhesive layer for preventing separation of said wiring layer.

19. The semiconductor device according to claim 18,

wherein said fourth insulation film is made of polybenzoxazole resin.

20. The semiconductor device according to claim 14,

wherein said wiring layer is made of metal.

21. The semiconductor device according to claim 20,

wherein said wiring layer constitutes a metal pad which is connected to said external terminal, and/or a metal wire through which the current flows via said metal pad.

22. A manufacturing method of a semiconductor device comprising:

a step of forming a first insulation film on a semiconductor base;

a step of forming a second insulation film thicker than said first insulation film on said first insulation film;

a step of forming a third insulation film made of a material having a moisture resistance property on said second insulation film; and

a step of forming a wiring layer on said third insulation film, wherein a current flows between said wiring layer and an external terminal.

23. The manufacturing method of a semiconductor device according to claim 22, further comprising

a step of forming a fourth insulation film for preventing a damage on said third insulation film between said third insulation film and said wiring layer so as to cover an entire surface of said third insulation film.

24. The manufacturing method of a semiconductor device according to claim 23,

wherein said step of forming said wiring layer includes:

a step of forming a seed layer to serve as a seed for growing a metal layer by a

plating process, on said fourth insulation film;

a step of forming a resist film on areas of said seed layer on which said wiring layer is not to be formed;

a step of growing said metal layer by a plating process on areas of said seed layer that are not covered with said resist film; and

a step of removing said resist film and said seed layer beneath the resist film by etching while protecting said third insulation film by said fourth insulation film.

25. The manufacturing method of a semiconductor device according to claim 24, further comprising

a step of forming a fifth insulation film to function as an adhesive layer for preventing separation of said wiring layer, between said fourth insulation film and said wiring layer.

26. The manufacturing method of a semiconductor device according to claim 23, wherein said step of forming said fourth insulation film includes a step of forming an insulation film which functions as an adhesive layer for preventing separation of said wiring layer, as said fourth insulation film.

27. The manufacturing method of a semiconductor device according to claim 26, wherein said step of forming said fourth insulation film includes a step of making said fourth insulation film of polybenzoxazole resin.

28. The manufacturing method of a semiconductor device according to claim 22, wherein said wiring layer constitutes a metal pad which is connected to said external terminal, and/or a metal wire through which the current flows via said metal pad.